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SURGICAL LECTURES,

DELIVERED BY

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LECTURE 5.

GENTLEMEN,

IF the inflammation of which I was speaking in my last Lecture do not subside on the removal of the irritation which produced it, or by the employment of the methods which I have pointed out, it hurries on, increasing in violence; the symptoms all become aggravated, and perhaps some constitutional disturbance is produced; it hurries on, I say, to a *second termination*. It is often a very violent disease, and having reached a certain height, it appears incapable of being counteracted, and terminates in a manner which I am now about to describe. When all the symptoms by which the disease is characterized, namely, the irritation, throbbing, and pain, when these become so severe that the patient can hardly bear the suffering any longer, all of a sudden there is a peculiar circumstance takes place, something seems to crack in the interior of the swelling; it is attended with a sensation of rupture, and a fluid is found on the examination of such cases—That is the fact: What is the consequence? Why, an immediate abatement of all the pain takes place; the quantity of fluid increases, the parts become less hard, there is a sort of pyramidical projection from the centre of the tumour, the fluid approaches the surface, and a fluctuation becomes palpable to the touch; the superincumbent parts become thinner and thinner. The skin is taken away in one or more points, one, generally, when the inflammation is healthy, and we are supposing phlegmonous inflammation as it occurs in a healthy person; something escapes beneath the scarf skin; it becomes distended, then bursts, and a great discharge of matter takes place, and there is a complete abatement of all uneasiness, and the disease may be said to be well. Very frequently shivering has been observed to take place when this change occurs, and on this, subsidence of pain, and the feeling of fluctuation; and it is a circumstance which has always engaged the attention of medical men, so much so, that when inflammation is going on in internal parts, and the changes that these parts undergo cannot be seen, they think shivering a symptom, as they call it, indicating the change which has taken place in the local actions of disease, as Mr. HUNTER has observed; he says that he has seen it precede ulceration, and he attributes it in every case to an affection of the stomach. Now it does not always occur when the fluid, which we denominate

matter or pus, is forming, as I shall afterwards have to show you, when I am considering that low, languid kind of inflammation, which is denominated chronic.

I wish now to engage your attention to this particular process, and to the nature of the circumstances which I have described. An effusion of fluid takes place, this must happen by secretion; there is no rupture of vessels, and therefore it must be a secretion. The secerning arteries pour out something, and we have reason to suppose that it is a serous fluid. Examine a part which has been the seat of inflammation, that is of recent inflammation, and what will you find? Why, you will find in it a fluid, colourless, transparent, and coagulable by heat, and thus far, in all probability, serum. And again, when you apply a blister to the skin, remove the cuticle and dress the sore with a piece of lint, take it away again in a short time, and you will find that it will be covered with a serous fluid, and afterwards pus will be secreted from the same surface. The secretion from the surface of a recent wound is first serous, and then the secretion becomes good matter, as we phrase it, after a time. But when pus is secreted, it is not effused into the cellular membrane merely, because, if it were, it would be diffused wherever that texture is found; but it is poured out into a cavity, a cup-like cavity prepared to contain it. Now this contrivance is very curious; however, granting that it was effused originally into the cellular substance, still it could not pervade this tissue, because there is a limitation set to its extent. It may be accounted for in this way; the inflammation, which was most severe in the central part of the swelling, was less severe in the circumference, and whilst the effusion of a serous fluid is taking place in the centre, there is, in the surrounding part, where the inflammation is going on to a less degree, an effusion of a gelatinous material, which agglutinates and consolidates the surrounding structures, and thus sets up a barrier to the diffusion of the central fluid. It is called a gelatinous matter, because it is like animal jelly, and has the property of uniting the surfaces of a recently incised wound, and it was first described by Mr. HUNTER as the adhesive matter. He describes the process by which the walls of an abscess are formed, in the following manner, "That inflammation which is most violent in the centre, and tends to suppuration, is less violent in the circumference, and is disposed to throw out adhesive matter, which, by gluing the parts together, produces a mound to prevent the extension of the pus into the cellular substance." This cavity, which you may call the cyst of the abscess, is walled in by a combination of the surrounding cellular texture, by the means which I just described.

We suppose that matter is poured out in the centre of the tumour, and as the quantity of matter increases, it enlarges the space by the pressure which it occasions; it continues to increase, and approaches to the surface of the body; and as the collection of matter forming the abscess extends itself, the parts situated between it and the surface of the body become removed, until all the superincumbent parts are entirely taken away by a process of absorption; the matter reaches the surface, and then it is that the matter issues from the cavity of the

abscess below the scarf skin; it becomes distended, and gets thinner and thinner, and at the last it bursts, and the matter escapes. Now if you speculate as to the cause of the increased action of the absorbent vessels, you may say that it is owing to pressure; but pressure operates equally in all directions, and this absorption is continued only towards the surface of the body. There seems to be a general law of the animal economy, that all parts are to become absorbed, which are situated between an abscess and the surface of the body, as if to mark out a way for the escape of the matter. If an aneurism form, which is the giving way of the coats of a large artery, and the subsequent effusion and coagulation of blood, if, I say, it form in the interior of the body, why, it does not burst into the chest or abdomen; oh, no; but all those structures which are placed between the aneurismal tumour and the surface of the body, become absorbed. If the aneurism happen in the chest, then the ribs and sternum are taken away; the muscles covering these parts are also removed; the skin ulcerates, and the discharge of blood takes place. Yet you cannot say that this is all done by mere pressure; for that which presses must press in all directions, and the absorption here takes place only toward the surface. Again, if the aneurism should happen in the abdominal aorta, where it passes down close on the back, the whole of that part of the vertebral column situated near the tumour has been taken away. All I can say is, that it is a very curious process, and appears to be owing to some very wise provision of nature for the safety of the animal body, with which we are at present unacquainted.

As I described to you the process of *absorption*, I said that the matter got beneath the scarf skin; now there is no evidence of the cuticle ever having become absorbed; and if an inflammation takes place in the finger, and goes on to suppuration, the matter may get beneath the cuticle, and detach it all round the finger, but the cuticle keeps it there; it acts as a bandage, and prevents the matter from escaping for some time, but at length it breaks from the distension, and this generally happens where the cuticle is weakest, which is where it joins with the nail. It is the accumulation of the matter, then, around the finger, that is termed a whitlow. All these points are interesting and important, and deserve, therefore, your serious meditation. There is a point which I wish you to consider, it is this; the whole of the inflammatory appearances are increasing, and before the matter is discharged, there is a considerable projection of the abscess, it becomes conical, or pyramidical. How can you account for this mounting up of the abscess above the natural height of the skin, and this pyramidical appearance, unless you suppose that there is a relaxation of the surrounding parts of the skin favouring this protrusion, and no doubt materially conducing to the more rapid absorption of these parts?

Who noticed these interesting changes in diseased actions before Mr. Hunter? No one. He it was who attended correctly to the progress of disease, and particularly of this disease, and he examined also the nature of the fluid which was discharged. But what comes out? what is the state of the

part from whence it comes? Open an abscess and look at its contents; you see that the matter is discharged from a neat little cavity having a villous surface, it exhibits such a surface, that an anatomist would say, Oh! this is a surface destined for a peculiar office, it is capable of secreting and absorbing. JOHN HUNTER, with a view of ascertaining this point still more decidedly, opened the tunica vaginalis of a rat, and introduced a piece of tow into the opening; he took it out at different times, and replaced it again, and he found that there was nothing but serum at first upon the tow, but he afterwards saw that there was pus upon it; now, said he, that will do; he killed the rat, and examined the surface of the tunic, and he found that it had acquired a villous character. You will see how apparent this change in the surfaces of mucous membranes is, if you notice the eye. When there is a disposition to secrete pus in the polished surface of the conjunctiva, see how rough it becomes, it is covered with little prominences more or less distinct, but sometimes they acquire a large size, and prove a source of irritation to that organ. It is clear, then, that pus is a secretion. Now if the secretion of pus should go on with greater speed than its absorption can take place, then there is an increase in the size of the abscess; but if the absorption goes on quicker than the secretion, then the abscess diminishes; but if the absorption and secretion go on equally, then the size of the abscess remains stationary. It does not necessarily follow, that, because suppuration has taken place in the interior, that the abscess must go on and burst, but this I shall attend to more particularly when I come to the consideration of that inflammation which is denominated chronic. But phlegmon is a violent disease; it must either be arrested *in limine* by the removal of the cause of irritation, or it will hurry on to suppuration. All abscesses are not of this violent character, and therefore it does not follow, that because suppuration has taken place, it must go on and break.

What is this *matter* which is discharged?

It is a subject for which prizes without number have been given, and prize dissertations have been written, all having for their object the mode by which you might distinguish pus from other fluids. I could tell you a great deal of what these prize dissertations have furnished, and I could tell you what experiments I have made on the same subject; but all these are already before the public, and I should be detaining you here longer than you or I should like, if I were to enumerate the whole of them. All I can say on the subject is, that you ought to read what has been written on the subject, and judge for yourselves. It is my duty, however, to furnish you with the information which I have been able to collect on this point. Now what I consider to be the most certain *distinction* between *pus* and *other* secreted *fluids*, the consequence of disease, is, that pus contains globules. If you take the trouble to examine the matter recently taken from an abscess, and examine it with a microscope, you will find this to be the case, and these globules will be of various sizes. I have read lately that these are the globules of the blood, but I do not believe that they are, because the globules of the blood are of an uniform size, and the globules of pus

are not. This was the point Mr. HUNTER attended to when he examined the circumstances attending the *secretion of pus*. He said, that which was serous in the first instance did by some change in the secretion, become globular. Whether these are the facts or not I cannot tell, they are what Mr. HUNTER said, namely, that the secretion was first serous and afterwards puriform. I might have before told you that pus was at one time considered to be a solution of the animal fibre; that it was melted down by a sort of decomposition, into a white fluid; that it was a breaking down and concoction of the solids. But this was clearly set aside by showing that pus was often found in parts where no breach of texture could be detected. It was a long time before the doctrine of pus being a secretion was brought to perfection, and it was astonishing what difficulty Mr. HUNTER experienced in making the profession believe that it was so. The opposition and obstinacy which that man had to contend with no person can tell.

Pus is a liquor which is just the colour and consistence of cream; one might say that it was a very good dressing for a sore. You know the definition of what the old surgeons called laudable pus, viz. that it was *album, liquidum, et equale*.

We have supposed that the cavity of the abscess is opened, and the matter which it contained discharged. What is the mode of procedure which nature adopts to restore the loss of the part? What takes place I shall now describe to you. After the vessels have continued to secrete pus a few days, the inflammation in the part, if properly treated, becomes less, and there is a gelatinous fluid poured out; into this jelly new vessels shoot and cause little projections on the side of the abscess; from these little projections, other vessels shoot, for they soon become very vascular, and are covered with a puriform fluid. These *granulations* continue to increase, and may be seen occasionally even protruding beyond the level of the aperture. The disease has subsided, the cavity of the abscess is completely filled up, and this appears to be nature's cure and her mode of cure.

By attention to these facts, it follows, that any interference on the part of a surgeon is injudicious and unnecessary. The superincumbent parts become thin, and an opening is gradually made by which the matter escapes, and they are not at all inclined to heal until the cavity is quite filled. But some persons, inattentive to the process of nature, think that if a man have a phlegmon and some shivering, that he must set about letting the matter out, and he sticks a bistoury into the swelling, and perhaps lets out a little, but the parts covering the abscess are not so thin but that they are inclined to unite, and the edges of the incision become closed. Nature's processes are all carried on in the best possible way, and as she has ordained them. There is such a diseased state of skin induced, that it has not the power of getting well until the cavity of the abscess is filled up.

What are we to do? What is the *surgical treatment of phlegmon*? Why, scarcely any; we put over the inflamed part a poultice, after having first tried to reduce its temperature, and this is to be done, as I before told you, by putting on cloths wetted

with water, or vinegar and water, and allowing the fluid to evaporate. The patient will say "oh! how comfortable this is," and you may go on applying the cloths until the excess of heat is diminished. But after this has been done some time, he will say, "this wash does not feel so pleasant as it did, it chills me very much, and I am very uneasy, cannot you do something else for me?" Well, what you do then is, to lay aside the cold application, for we have no right to take the law into our hands and freeze the part, but put on a *greasy poultice*, and the patient will say, "this is very pleasant and comfortable, thank you, sir, thank you, sir." Now I remember, that when I was appointed Professor of Surgery to the *Royal College of Surgeons*, I entertained the persons assembled with the manner of making a greasy poultice, and I said to them what I shall presently say to you on this subject. But I thought to myself, that supposing I should have met a person on my return from the College, and he had said, What! could you find nothing better to talk about before such a *learned body*, than the method of making a greasy poultice? Ha! ha! I should have said, in reply, I thought that the greasy poultice was not properly made, and I considered it my duty to tell them so; and I hope they will forgive my presumption. (A laugh.)

Well, now, as I have told you how to make a bread and water poultice, I shall now describe the manner of making the greasy poultice. If the Editor of *The Lancet* should be present, this is a part to which he should particularly attend, because it is a very pretty thing to find its way into the newspaper. Scald your basin, by pouring a little hot water into it, then put a small quantity of finely ground linseed meal into the basin, pour a little hot water on it, and stir it round briskly until you have well incorporated them, add a little more meal and a little more water, then stir it again. Do not let any lumps remain in the basin, but stir the poultice well, and do not be sparing of your trouble. If properly made, it is so well worked together that you might throw it up to the ceiling, and it would come down again without falling in pieces; it is, in fact, like a pancake. (A laugh.) What you do next, is to take as much of it out of the basin as you may require, lay it on a piece of soft linen, let it be about a quarter of an inch thick and so wide that it may cover the whole of the inflamed part. Then take a bit of hog's lard on the top of your knife, and put it in the centre of your poultice, and when it begins to melt, draw the edge of the knife lightly over the surface of the poultice, and you will spread the grease over it. It is now ready to be applied, and it is what I call a *greasy* poultice. Oh! it is one of the best applications which can be made to an inflamed and irritable part, provided the linseed meal with which it is made is sufficiently fine; but I never see any such thing now as good fine linseed meal, it is all pressed into oil cake and given to cattle to fatten them.

It is, when made in this way, oh! it is beautifully smooth; it is delightfully soft; it is warm and comfortable to the feelings of the patient, and it is the best application that can be made to an inflamed part, as I have before said. The reason why I have lately preferred bread in the composition of

the poultice is, because I cannot get the linseed-meal in a sufficiently fine powder. So much for the greasy poultice. (Another laugh.) You may laugh as you please, but it is a very good poultice, and the manner of making it cannot be too generally known.

I shall suppose that this violent inflammation may terminate in *mortification*, but it rarely does so; phlegmon is a disease which occurs generally in a healthy constitution, and therefore it is very seldom that the parts mortify. But I admit that the action of this inflammation may be so severe, that it may exhaust the vital principle of the part, and terminate in what we call mortification. I shall consider this more fully hereafter, as a separate subject; but I will tell you what Mr. HUNTER said of it, and you can have no better authority. The blood congeals in the vessels, the circulation goes on no longer, the part becomes cold, changes its colour, and there is some effusion of serum beneath the cuticle. The blood does not circulate in the vessels immediately surrounding the mortified part, but coagulates in the vessels to a considerable distance. This is a very curious circumstance, and serves to show that there is some peculiar sympathy existing between the vessels and their contents. To such a distance does this coagulation of the blood take place, in the vessels leading to a mortified part, that I have known it to happen, that when an operation has been performed there has been no hæmorrhage. I recollect having seen a man who had a diseased leg, and mortification took place in it; it was considered necessary to amputate, and the limb was consequently amputated above the knee; there was no hæmorrhage; the tourniquet was loosened, but no blood flowed. On examination, it was found that the popliteal artery was plugged up with blood, even to a considerable distance above the place where it was divided; it was a *bloodless* operation. I have seen such more than once, but I never wish to see it again.

I say that plegmonous inflammation, it must be granted, will sometimes terminate in mortification. What are we to do when it does so terminate, and what applications are we to make to the parts? Oh! they must be soothing, soothing, nothing but soothing. It is excess of action which causes the parts to perish, and therefore you must soothe them. You do not make your applications with the view of acting on the dead parts, but on the living. You must remember, that whilst the inflammatory action is so severe, in the centre of an inflamed part, as to cause its vitality to be destroyed, that the neighbouring parts are still very much inflamed, and perhaps going into a suppurative process, and further from these parts the inflammation is still less severe; so that you see there are various degrees of inflammation in the parts, as they recede from the central part of the swelling. The best thing you can do, is, to apply a poultice over such a part, and attend to the regulation of the temperature of the surrounding parts, in the manner which I have before pointed out. You will find much written on this subject in surgical and medical books, and it is useful and necessary that you should know what has been said. You will find various methods recommended:—they say the part is dead; other parts are becoming so; they are in a weak state; and

we must support the life of the part and of the system. But always exert your own understanding in cases of so much importance; look at the state of the parts, anatomically and physiologically; and then ask yourselves which treatment you ought to adopt.

There is an inflammation which takes place in the animal body, which is very languid in its character, is very insidious in its approach, and is very slow in its progress; it is called *chronic inflammation*. It is of an indolent description; it does not attract much attention, because it is not attended with pain. But in speaking of this subject, I am speaking of a disease which, with its various modifications, is of the utmost importance in the practice of surgery. There is no part of the practice of surgery that requires so much ingenuity or skill. Any man knows how to treat an active inflammation; but this slow, disorganizing action will often baffle our best attempts, and defy our most efficient remedies. Our notions respecting its treatment will very much depend on the views which we have drawn, in our own minds, of the changes which inflamed parts undergo; but if they are contradicted by an appeal to facts, then they are opinions which we are not justified in holding.

We generally see, in all parts of the body, that when the action of any part is increased, its secretion is increased; but then this secretion is not of its ordinary character. We have daily examples of this in disorders of the liver. Again, supposing a membranous surface to be slightly inflamed; instead of its secreting a thin transparent fluid, you will find that the fluid will become more gelatinous in appearance, and capable of gluing together the surfaces which are brought into contact. We have numerous proofs of it in the adhesions which we find taking place between the folds of the peritoneum and the surfaces of the pleura, membranes which have been termed serous. We see it again occurring in the cellular membrane; the interstitial structures are connected together by a material, which is elaborated by this slow and indolent form of inflammation. There is not only a thickening of substance, but there is an increase of structure which follows. New vessels shoot into the newly-combined parts; these, again, produce new materials for a further growth; and thus the morbid structure continues to increase; and I cannot help thinking that there is some morbid propensity in the vessels of such a part to take on such a diseased action. These are no fanciful notions; they are such as have been confirmed by facts.

Did you ever examine an inflamed part? If you did, you found, in the early state of the disease, gelatinous matter effused; and into this matter you saw little vessels shooting, thus connecting the unorganised with the organised structure. Vessels cannot grow into nothing, or "into thin air." There must be some medium for this purpose: jelly seems to be the matrix, and is very well adapted for the growth of vessels, and they have a great propensity to shoot into it, to grow, and become a living mass. The structure is thus rendered, as it were, granular; but the process is accomplished in the deposition of adhesive matter, without the effusion of a puriform fluid. Chronic inflammation is an inflammation which very much disorders the structure of a part, before it en-

gages much of the attention of the surgeon or the patient.

But the functions of the parts are also altered with their alteration of structure. We see, also, very frequently, that those parts which are chronically enlarged undergo certain changes, either from a disturbance of the general health, or some irritation excited in the local diseased action. Other forms of inflammation, I say, may supervene; a more active inflammation may take place: then the chronic inflammation will suppurate; perhaps ulceration will take place, and the part in this way becomes disposed of; or inflammation and sloughing may come on, and in this way the destruction of the diseased structure may ensue. But these changes in the actions of the vascular system, by which the functions of organs become vitiated, and the structures of parts altered, do not take place in the healthy constitution: or admitting that some result of chronic inflammation had been produced, if the general health had been restored and preserved, none of the consequences which I have just described could supervene. There is no doubt in my mind, that the state of the bodily health does very much influence the local diseased action, and I could give you many cases to prove this, in addition to those I have already told you, but it is not now worth while to do so.

I am never afraid of inflammation in an active form. Let me see inflammation attacking a part, and I know what to do with it; but oh, hang it, hang it, I am horribly afraid of this low, disguised, chronic form of inflammation, which alters the natural structures, and destroys the proper offices of parts. The treatment of such cases will form a part of absolute surgery, and therefore in my next lecture I shall begin what I call *absolute surgery.*

REVIEW.

Original Cases with Dissections and Observations illustrating the use of the Stethoscope and Percussion, in the Diagnosis of Diseases of the Chest, &c. &c. By JOHN FORBES, M. D., Physician to the Chichester Dispensary. 8vo. P. p. 392. London, 1824, Underwood.

[Concluded from last week.]

In our last Number we gave a condensed account of AVENBRUGGER's treatise on Percussion, in which we stated the mode in which it should be tried, and mentioned first, the kind of sound obtained from the healthy chest, its character in different parts, and then, the nature of the sound, afforded by percussion in disease, together with the complaints in which the morbid sound could be easily recognised. We shall now proceed to point out the diseases of the chest, in the diagnosis of which percussion affords little or no assistance; not that our opinion of the value of this diagnostic sign is at all lessened, but because we conceive that by distinctly pointing out the cases in which it assists, and those in which it assists not the medical practitioner, we shall be taking the most effectual means to extend its merits and increase its usefulness. For want of this negative kind of information, we are certain that much mischief is frequently done to the cause of medical science. On the discovery, for instance, of a new medicine, it is immediately blazoned forth as

being a specific in some particular complaint, without any regard being paid to the circumstances under which its exhibition had been found to be of use. When, however, it is put to the test of extensive experience, and ascertained not to possess its vaunted powers, it falls into disrepute, and becomes entirely neglected. If, instead of the indiscriminate recommendation of a new remedy, careful and accurate experiments as to its medical properties were first substituted, and the results minutely and impartially detailed, then medical men would see in what cases, and with what chance of success, they might venture on its exhibition.

Laennec, after stating in a fair and candid manner the advantages to be derived from percussion, makes the following observations on this mode of investigating diseases of the chest, which, although, they should be received with some qualification as coming from the discoverer of auscultation, merit particular attention. "It cannot be denied," says he, "that percussion still leaves much to be desired. It frequently indicates nothing in phthisis pulmonalis, and in no case does it enable one to distinguish that disease from chronic peripneumony. In peripneumony, indeed, it is of little assistance when the inflammatory *engorgement* occupies only the centre of the lungs, or where the two lungs are affected at the same time in an equally slight degree; it affords no sign capable of distinguishing this complaint from pleurisy, hydrothorax, or any other effusion into the pleura. It furnishes no means of recognising pneumo-thorax, or rather it becomes almost a necessary cause of error in this case. It does not make known the diseases of the heart till this organ has obtained a large size; and most frequently death takes place before the disease arrives at this stage. It has never furnished indications of the existence of aneurism of the large vessels, but in cases where the application of the hand, or where the sight even furnished them with the greatest certainty. The results of percussion are, moreover, equivocal when the natural sound is absent only at the inferior part of the chest; they are frequently deceptive when the chest is deformed, even in a slight degree, by the effect of rickets; in fine, they are very uncertain, and even of no use, when the integuments of the chest are œdematous, or charged with a considerable quantity of adeps, and especially when they become flaccid by a slight diminution of this superabundant fat."—Laennec *sur l'Auscultation Mediate*, p. 4. tom. 1.

From the above statement it appears that there are cases in which percussion does not enable one to distinguish exactly what the disease of the chest is, and in others, such as aneurism of the large vessels, it affords no assistance whatever; yet, with the exception above-mentioned, by means of this sign it can be invariably ascertained whether disease exists or not, and from the general history of the patient, together with the help of the stethoscope, an experienced physician may state with precision both the nature and extent of the disease under which the patient labours. It is in combination, therefore, as we stated before, with the use of the stethoscope, that percussion is so valuable an assist-

ant in the diagnosis of the diseases of the chest; in all cases adapted to their use they should be tried together, and the results afforded by the one be compared with those obtained from the other.

We come now to that part of the work before us, viz., the cases recorded by Dr. Forbes, in which the assistance afforded by percussion and auscultation is so striking, that we think a mere statement of the facts will have a powerful influence in inducing medical men to adopt them both in their practice. The cases consist of diseases of the heart and pericardium, chronic pleurisy, hydrothorax, chronic peripneumony, and asthma. With one or two exceptions, all the more acute inflammatory affections are omitted; and no cases of phthisis pulmonalis are given. Before we proceed to lay before our readers some of the cases related in this volume, we shall enter a little into the history of the affections detailed in those cases, in order to impress more strongly on the mind the importance of the facts which they contain. Dr. Forbes has not touched on this part of the subject at all, because the limits of his work did not allow of it, and his principal object was to give to the profession original cases illustrating the use of the stethoscope and percussion in the diagnosis of the diseases of the chest, thereby supposing his readers to a certain degree previously acquainted with their general character. But independently of the value of the cases being greatly enhanced by it, we are certain there are some to whom any information on these complaints will be entirely new, and we shall therefore give, within as narrow a compass as possible, an account of the affections which we intend illustrating by the cases in the volume before us: these are peripneumony, pleurisy, and hypertrophia. We shall begin with peripneumony, state its general character and symptoms, and then give some cases of this disease: we shall also adopt the same plan with pleurisy and hypertrophia.

Peripneumony.

This disease consists in an inflammation of the pulmonary tissue, and, according to Laennec, presents, in its anatomical relations, three stages, which are perfectly distinct and easily recognised.

"In the first," (vid. Laennec sur l'Auscultation Mediate, p. 160, tom I.) says this distinguished physician, "the lung is heavier than natural, and presents, on its external surface, a livid or violet colour, and a degree of firmness much greater than in the natural state. It is, however, still crepitous; but when pressed between the fingers, it is very apparent that it is gorged by a fluid, and that the crepitation is much less than in the healthy state. When cut, its tissue appears of a livid red, and altogether filled with a serous fluid, more or less bloody and frothy, which exudes in abundance from the divided surfaces.

In the second stage, there is no crackling whatever of the lung, on its being pressed between the fingers, and it then acquires a degree of firmness and solidity similar to that of the liver, a state which has been designated by modern anatomists *hepatization*. In the second stage of inflammation, the lung often appears less livid externally than in the first, but internally it is more or less of a deep red colour, on which are marked, in a striking manner, the spots formed by the

black pulmonary matter, the bronchial tubes, the blood-vessels, and the thin cellular partitions which divide the pulmonary tissue into unequal portions. These membranous partitions, which are rather difficult to be perceived in the natural state, become then much more distinct. They often appear as if they were not inflamed, and then their whiteness renders them perfectly apparent. On making several incisions into a lung thus affected, nothing is found to exude from their surface; but on scraping them with a scalpel, a moderate quantity of bloody serum, more turbid and thick than that described before, and in which there is frequently observed a thick opaque, and white purulent matter. The internal surface of the lung, on being exposed to the light, presents a granular appearance.

In the third stage, the pulmonary tissue preserves the same firmness and granular appearance which we have just described, assumes a pale yellow colour, similar to that of straw, and pours out, in greater or less abundance, from its divided surfaces, a yellow opaque, viscid, and evidently puriform matter, but of a pale colour, and which is not so disagreeable as pus from an external wound. This state is, strictly speaking, suppuration of the pulmonary tissue. With respect to abscesses in the lungs there is no disease so rare as a true collection of pus in that organ. Among several hundred cases of peripneumony, which M. Laennec examined after death, he only found five or six instances of collection of pus in an inflamed lung.

These three degrees of inflammation are found combined in different manners. Very often one lung, throughout its whole extent, is in the third stage of inflammation, when, the other is inflamed in a few parts only, in the first or second degree. Sometimes the three degrees are observed in the same lung, and separated by distinct boundaries, or insensibly lost in each other. But the whole of the lungs is never inflamed in the third or even second degree, and it may be easily conceived that this could not take place, since, such an *engorgement* could not occur in an instant, and that it would be impossible to breathe. It is not rare to find subjects in whom one whole lung, and more than half of the second, are entirely impermeable to the air. Among other subjects, on the contrary, peripneumony produces death: a fourth part of the lungs have been gorged to this degree. This fact, with many others, goes to prove, that in the alteration of our organs, death is much more often caused by the exhaustion of the principle of life than by the severity or extent of the local affection.

Peripneumony, when arrived even at the third stage, may still terminate by resolution, or rather the absorption of pus, and without disorganization of the pulmonary tissue. If, in this case, the patient die during convalescence, which sometimes happens, especially in subjects of advanced age, the pulmonary tissue does not present the hepatic firmness, nor has it the density which is produced in peripneumony, in the first stage or œdema of the lung: it slightly crepitates under the finger, does not invariably sink to the bottom of the water; when cut, a certain quantity of liquid pus oozes out, the surface of the incisions presents a yellowish or slightly green tint, which forms a striking con-

trast to the remaining sound parts of the lungs. If the resolution is in a very advanced state, this tint is still manifest.

Chronic peripneumony, when it is not combined with the development of tubercles, or some other morbid productions, really presents the same anatomical characters as the acute, and it would be very difficult for any one the most accustomed to researches in pathological anatomy to state, on the opening of the body of a patient who had died of peripneumony, the approximative duration of the disease.

Symptoms of Peripneumony.

The chief symptoms of this complaint are, difficulty in breathing, deep pain in the side affected, inability to lie on that side, fever, cough, viscid expectoration, and occasionally mixed with blood, and the urine of a deep red colour. But all these symptoms are not invariably present; and one, two, or more of them may be absent, and the patient still labour under an acute form of this disease. Thus the patient may not be able to lie on the side affected, and the cough be slight. But there is one symptom, and the only one, which can be regarded as pathognomonic, because it only exists in this complaint, which is, the expectoration of a substance of a white, slightly green, or yellow colour, nearly semitransparent, and mixed with bubbles of air that cannot escape, on account of its viscidity; this is so great, that if the vessel is turned upside down, and kept in this position for a considerable time, the expectorated matter will adhere to its sides. But this sign is not always so marked as we have just described, and it does not exist so distinct but in the first days of the complaint; and in certain constitutions it is much less characterized than in others. The inconstancy of the external symptoms shows the value of the assistance to be derived from percussion and auscultation.

The percussion of the chest, according to the method of Avenbrugger, is a means much more certain than the examination of the external symptoms, for recognising peripneumony, in whatever stage it may be. The little time and trouble which it requires, and the certainty of the results which it gives, should prevent us from searching any other mode of investigation, if it were applicable in every case; but, as we have already said, it affords no signs for distinguishing this complaint from some others. The investigation by the cylinder is not attended with this inconvenience: it indicates the pulmonary engorgement in every case, and it has the advantage of indicating the degree with more precision than percussion.

In the first stage of peripneumony the respiration may still be heard in the part affected; but it is less distinct and sonorous than in the other parts, and is accompanied, in inspiration particularly, with a kind of crepitation, or slight rattle, the sound of which may be compared to the crackling of salt in a heated vessel. This rattle, which Laennec terms the **crepitous rattle*, is the pathognomonic sign of the first stage of peripneumony. The second and third stages are recognised by the total absence of the respiratory murmur. Sometimes the *mucous rattle*, more or less marked, is heard. This takes place especially when, in addition

* Vid. Lancet, Vol. V. No. 4, p. 155.

to the peripneumony, there exists a pulmonary catarrh, or when the viscid expectoration and the state of the complaint becomes changed, towards its decline, into a firm matter. The *puerile respiration* is frequently observed in the three stages of this complaint, principally in the two first. When the peripneumony begins to amend, the stethoscope makes known the fact by the gradual return of the respiratory murmur, and at an earlier period than percussion. The sound of the respiration is always first heard at the upper part of the diseased lung.

"The advantage afforded by the stethoscope," says LAENNEC, "ought not to make us neglect the use of percussion in peripneumony; it is not so applicable as the other in all cases, but in those in which it is, it has the advantage of being a more expeditious mode, and less inconvenient to the medical attendant. It has the inconvenience of being difficult to practise, and of requiring more care and attention." We cannot assent to LAENNEC's assertion, that the art of percussion is more difficult to be acquired than an accurate knowledge of the use of the stethoscope, for, having tried both modes, we are able to judge of the comparative difficulty of each. The time required to become acquainted with the right use of the stethoscope is very considerable, and, with the utmost attention, a beginner will be frequently deceived. The only way to know whether the diagnosis he has given from the use of either mode is correct, is that pursued by Dr. FORBES, of recording at the bed-side of the patient his opinion of the case, and in fatal instances of ascertaining by *post mortem* examinations the real nature of the disease. This plan we have adopted, and in no small number of cases, almost in succession, were we deceived as to the diagnosis we had formed from the application of the stethoscope. This may not happen with all, but we are convinced that, till after a long and careful use of the cylinder, every medical man will be liable to frequent errors in his diagnosis. Percussion we have not tried so extensively as the stethoscope, nor have we bestowed so much labour on this mode of investigation as the other, but we have found none of the difficulty in learning its use that we did with the first. It may not be amiss here to state, that in two or three cases in which we made use of percussion alone, we were deceived as to the sound we obtained from striking the inferior part of the right side of the chest. This error arose in part from our forgetting that in this situation, under any circumstance, the sound afforded by percussion is dull, and also, as we afterwards ascertained, by the inspection of the bodies, from considerable enlargement of the liver. In trying these modes of investigating disease, we set out with the determination of not condemning their use, should we commit mistakes, till we had fairly ascertained whether the causes of those mistakes rested with ourselves, or whether the sounds afforded through the medium of these modes were not to be relied on as diagnostic signs in diseases of the chest. From a fair trial of one of these modes at least (auscultation) we must state that our errors in the beginning of its use were attributable to our want of knowledge, and subsequent experience and study have enabled us to avoid those mistakes which we were before so frequently making. The wrong diagnosis we formed, in

the instances where we tried percussion alone, struck us forcibly at the time of the importance of trying both modes at the same time. In reference to this LAENNEC says, that the successive employment of the two methods in doubtful cases gives a degree of certainty to the diagnosis which neither the one nor the other by itself could have afforded. We shall now give one or two of Dr. FORBES's cases in which peripneumony existed.

CHRONIC PERIPNEUMONY.

Chichester Dispensary. Nov. 18th, 1823.—William Dolman, carpenter, æt. 48, has always had a delicate chest, being subject to frequent colds, often with much cough, but with little expectoration, dyspnœa, or pain. During the last year and a half, however, he has had a much more severe and frequent cough, with more or less of uneasiness about the chest, and a good deal of pain in the side of the trachea, aggravated by deglutition and the act of expectoration. During the last four months he has been much worse, having been unable to work, with great increase of cough, pain in the chest, &c. He has also had repeated hæmoptysis to a very considerable extent, and a constant and copious expectoration of a watery or mucous fluid; viscid, frothy, dark, and very fœtid. Within the last eight days, he has not spit any pure blood, but the expectoration, which is chiefly very viscid mucus, is at present tinged with blood. He has a constant feeling of great soreness over the whole chest, in so much, that a moderate degree of percussion, applied some days since, occasioned a very severe pain for twenty-four hours. He cannot lie on either side, nor with the head low. He sleeps very badly, principally, he thinks, on account of the cough. He has not any fever, properly so called, nor has he perspired very much. He is, however, much emaciated, with a dirty brown complexion, rather than with a leucophlegmatic paleness. The pulse is to-day 96, but it has usually not been more than 84. The bowels are regular, tongue pretty clear, and urine of natural quantity.

Stethoscope.—Right side. Respiration extremely imperfect, yet every where perceptible above the nipple, on the patient's taking a deep inspiration; but with various intensity in different places, and in the same place at different times; in some points with a slight crepitous, and in others with a sibilous rattle, somewhat more distinct under the cartilages of the ribs, not at all audible below the nipple, nor under the scapular end of the clavicle. Imperfect pectoriloquism about the nipple. *Left side.* Respiration more distinct under the clavicle, but over the rest of the side, as imperfect as on the right. A slight sibilous rattle, but nothing like pectoriloquism or hægophonism.

Diagnosis. Chronic Peripneumony.
Prognosis. Death.

The only remedies here prescribed were with the view of relieving the pain and cough, and procuring sleep.

Dec. 14th. Has been of late considerably more easy; cough, expectoration and pain, being all a good deal less.

Stethoscope. Respiration still extremely imperfect; heard, however, in different points of both sides, and in the same points at different times, as a sufficiently loud, but extremely brief, abrupt, or broken hiss. In no place is the natural sound of respiration to be distinguished. Imperfect pectoriloquism under the scapular end of the right clavicle. Sound of the heart very distinct in the cardiac region, with a sort of silvery thrill* in the sound—slightly audible under both clavicles—sound of natural character as in the rhythm—hardly any impulse in the region of the heart. Skin cool; pulse 86, soft.

This poor man lingered on, much in the same state, until the end of February, the cough and expectoration of fœtid matter being, at the time, very considerable.

Inspectio Cadaveris.—The chest was examined in my presence by Mr. W. GUY and Mr. TULLY. The heart was slightly enlarged, and its parietes were thin, yet there was no appearance which

* This sensation has not been described by LAENNEC, nor is it susceptible of any very nice description. Dr. FORBES, in his remarks on this case, thinks it may be classed as a variety of the puerile respiration; it is only much lower, and is cut short immediately after the commencement of each inspiration and expiration.

could be considered morbid. The right lung adhered throughout its whole extent to the pleura costalis, diaphragm, and pericardium, by attachments clearly of old date. It was also indurated throughout, but not completely hepatized; gorged with black offensive sanies, and with many ulcerated cavities in different parts, but there were no tubercles. Left lung, equally adherent to the parietes, was harder than natural, yet considerably less so than the right, particularly the upper lobe, which was still crepitous; it contained a good many black, unsoftened, tuberculous looking masses. Abdominal viscera were sound. Page 265.

Hypertrophia with dilatation of the Heart in a moderate degree---Peripneumony---Pleurisy.

Chichester Dispensary, April 8, 1823.---Riddal, æt. 60, a farm servant from the vicinity of Brighton, had always enjoyed good health, until 12 weeks ago, with the exception of a slight degree of cough occasionally, but which never interrupted his labour. At the beginning of this period, he was rather suddenly attacked, one very cold day in the fields, with a moderate degree of pain, and sense of oppression in the region of the heart, and dyspnœa, which obliged him to leave his work. Since that day, he says, his disease has continued to the present day without any change of character, except in having gradually become more severe. The symptoms of his complaint are few in number, but strongly marked. They are as follows: A constant and very distressing sense of fulness and throbbing in the left præcordia, the latter greatly increased at uncertain intervals, and always at the moment he takes any bodily exertion. Every kind of exertion induces, together with the palpitation, great dyspnœa, which goes off, after a certain time, by repose. Of all kinds of corporeal exercise none is so distressing as going down hill or down stairs; going up stairs or up hill is distressing, but not nearly so much so as the act of descending. His symptoms, especially the dyspnœa, are almost always greatly increased by the recumbent posture, on which account he has been obliged to sit in his chair many nights successively. Since his first attack, indeed, he has been able to lie down but rarely, and never with the head low. The attempt at recumbency on the left side is, of the two, most intolerable. The bowels and appetite are in a pretty good state, the tongue clean, and the urine of the natural quantity and light coloured. The skin is soft and cool, and the pulse is extremely irregular and unequal, small and feeble. He is very low spirited. The countenance very anxious, and the lips blue. Pulsation of the jugulars. (V. S. ad unc. X. R. Pilul. Hydrarg. Pil. Extr. Hydscy. j. c. n.)

15th. The blood not at all inflamed. Has been much easier since the bleeding, especially in his breath. He has been able to lie down better, and more on the left side. Pulse still extremely quick and irregular, and hardly perceptible at the wrist from its feebleness, although the action of the heart, as felt by the hand, is very great.

Stethoscope.—Heart. Impulse and sound both very great in the cardiac region, the contraction of the auricles and ventricles being very quick. Sound of the heart's contraction audible over the whole chest, before and behind on both sides, but only in a slight degree on the right back, and most without the stopper of the instrument; more audible under the right than the left clavicle.

Respiration.—Distinct over the whole chest, excepting a considerable space in the cardiac region. Over the same spot percussion elicits a dull sound. To this note of the examination were subjoined the following DIAGNOSIS and PROGNOSIS, *Hypertrophia with dilatation of the heart*—Death.

This poor man left Chichester on the following week, and died. The only thing I learned of his state after he left me is, that he was jaundiced for ten days before his death. To Mr. HUGH INGRAM, surgeon, of Steyning, to whom I had written respecting the case of Riddal, and who was kind enough to inspect the body after death, I am indebted for the following account of the dissection, which I shall give in his own words:—

Dissection.—"In the right cavity of the pleura was about a quart of bloody serous fluid, strongly tinged with bile. The right lung was much diseased, being more solid than natural, and having all the appearances of previous inflammation. No tubercles. The left lung diseased, but not so much as the right. In the pericardium there were

about six ounces of fluid of the same character as above described. The heart was larger than natural; its entire structure thickened, and bearing evidence of increased action; besides which, the only remarkable circumstance was the FORAMEN OVALE being open. On opening the abdomen, the liver was found considerably enlarged, more solid, and paler in colour than natural. The gall-bladder was distended with bile, the ducts very much contracted in size, and the common duct impervious. The spleen enlarged and much more solid than usual. The pancreas considerably indurated. There was nothing particular in the appearance of the other viscera."

In a subsequent note, Mr. Ingram added a few more particulars. The following are extracts: "To your first question, Whether the pleura was inflamed? I should say, Slightly so, but there were no adhesions. I should say, that the right lung did answer to the character implied by the term hepatization. There was a greater degree of firmness about it than natural. The parietes of the cavities of the heart were unnaturally thick, certainly, but not to a very remarkable degree. There was no appearance of ossification in any of the vessels, but great dilatation, as if there had been much force used to overcome obstruction. There was simply dilatation of the aorta. The liver was gorged with blood, and of an unhealthy colour. The duct was certainly obliterated, but the cause has not satisfactorily presented itself to the minds of those who examined the body. It does not appear that Riddal ever had jaundice before. The foramen ovale was a perfectly distinct and direct opening, but of a size only large enough to admit the end of a common blow-pipe which was used to expose it."

In this case, Dr. FORBES thinks that the peripneumony and pleurisy of the right side occurred subsequently to the examination of the chest by the stethoscope. The diagnosis deduced from auscultation was very correct as far as it went.

Pleurisy.

The acute form of this complaint is attended with symptoms well marked, and in general easy to be recognised. The pain, dyspnœa, fever, dry cough, or only accompanied by the expectoration of a glairy and nearly colourless matter, are often sufficient to enable one to be morally certain of its existence, without having recourse to any other mode of investigation. But it occasionally happens that some of these symptoms may be absent; and in chronic pleurisy, in particular, they are often so indistinctly marked, and attended with so many different anomalies of all the functions, that it is not generally till the end of several weeks, and even months, the true character of this complaint is suspected. PERCUSSION indicates in a manner much more sure the existence of pleurisy. As soon as effusion takes place, the sound is wanting in every part of the chest. The STETHOSCOPE is also particularly useful in this complaint. A great diminution or total absence of the respiratory movement, the presence, the temporary absence, and then the return of hægophonism*, are the signs by which the cylinder announces the existence of effusion into the chest, and indicates its degree. By a reference to the signs afforded by the stethoscope in peripneumony, as related above, and a comparison between them and the signs obtained by the same instrument in pleurisy, the one may be easily distinguished from the other. There is also one external symptom which will greatly assist in the diagnosis of the two, viz. the state of the ex-

* LAENNEC sur l'Auscultation Mediate, Tom. I. p. 548. Lancet, Vol. V. p. 153.

pectoration; this is a very important point, and should be always borne in mind. In some persons, the respiratory murmur never returns on the side affected, although the patient recovers; but in such cases you mostly observe a marked diminution of the size of the chest on that side.

Acute, ending in Chronic, Pleurisy—Contraction of the Chest.

Chichester Dispensary, Feb. 6, 1824.—Thomas Bailey, æt. 53. Three months ago he was attacked by a severe inflammatory affection of the right side of the chest, supposed at one time to be of the liver, marked chiefly by severe pain of the lower part of the chest on that side; much cough, without expectoration; inability during six weeks to lie on the side affected, and strong pyrexia. Very active antiphlogistic remedies were administered under the direction of an intelligent practitioner, and apparently with great benefit; as he has considered himself quite convalescent now more than a month. I have seen the patient for the first time to-day. He still suffers, occasionally, from slight pain of the right side, and also from cough. He, however, now lies indifferently on either side. There is only a slight degree of dyspnœa constantly present, but this is considerably increased by motion. The skin is quite cool; the tongue clean; the pulse between 80 and 90, soft, and occasionally intermitting. The bowels are regular, and there is no deficiency of urine. He has lost a good deal of flesh, but is by no means emaciated.

On examining the chest cursorily, the right side appears evidently smaller than the left. PERCUSSION elicits only a dull sound from the greater part of the right side, particularly the lower half; while the sound is sufficiently distinct and clear over all the left side. The STETHOSCOPE gives most indistinct respiration over all the right side without any rattle; and detects no respiratory sound whatever over the lower parts. The respiration is very distinct, perhaps puerile, over all the left side.

Diagnosis: Chronic Pleurisy—Contraction of the Chest.

March 4. Continues precisely in the same state. Chest was examined more particularly to-day. The whole aspect of this man is that of a person having one side smaller than the other, and he evidently leans to the right side. The following admeasurements shew the degree of contraction which has taken place. From the spinous process of one of the dorsal vertebræ across the nipple to the middle of the sternum, one inch less on the right side than on the left. From the spinous process of one of the cervical vertebræ across the clavicle to the nipple, a quarter of an inch less on the right side than the left.

PERCUSSION and the STETHOSCOPE give precisely the same results as on the former trial. The only things recommended by way of treatment to this patient were gentle aperients to keep the bowels regular, occasional blisters to the right side, and an adherence to a strict and long-continued antiphlogistic regimen.

May 19. Continues in the same state, being neither better nor worse than before.

Remarks.

It will be remarked that, in this case, I omitted to seek for *Hægophonism*, the only certain mark of distinction, according to LAENNEC, between the chronic peripneumony (scirrhus or hepatization of the lungs) and the chronic pleurisy with copious effusion: but I presume the contraction of the chest, in these cases, sufficiently characterises the disease. The prognosis here is of course very bad, the recovery of the patient is doubtful, and the cure, if it ever take place, is certainly not to be looked for within a period of many months. p. 245.

We find that we have not space at present to enter into any pathological account of hypertrophia; but we shall have occasion within a very short period to bring the subject of diseases of the heart under the consideration of our readers, when we will redeem the pledge which we have given above, but are at present prevented from fulfilling. The following case of hypertrophia* will be perused with interest.

* Hypertrophia is derived from ὑπέρ, *super*, and τροφή, *nutritio*, and called by

Dilatation with Hypertrophia of the Heart.

Chichester Dispensary, April 8, 1823.—George Mills, æt. 63, a strong and hard working labourer, was seized rather suddenly, about twelve weeks ago, during the prevalence of very severe weather, with oppression and tightness across the chest, dyspnœa, and accompanied by a very irregular pulse. Since that attack he has never been able to do any work, although he has attempted it, and has laboured under a constant sense of fulness and oppression about the præcordia, and occasionally a great tenderness there; great dyspnœa on motion, or any kind of bodily exertion, and frequently an inability to lie down in bed. He has also been repeatedly affected with sudden and severe paroxysms of the same kind, but in a more violent degree. The bowels have been regular, but the appetite is not good. The urine has been sometimes high coloured, and sedimentous, sometimes watery. The legs are now œdematous. The pulse extremely irregular. I saw this man again on the 15th, and examined the chest with a stethoscope. At this time, as before, the pulse was extremely weak and irregular at the wrist, a great many vernacular and hardly perceptible motions, being succeeded at intervals by one moderately full. There was a constant tremulous motion very perceptible in the jugulars, but the pulsation of the carotids was found to be very feeble. The face rather florid and veins shot, but not purplish.

Stethoscope. Impulse of the heart, in the cardiac region, very great; sound also louder than natural in the same place, and audible over the whole chest, before and behind, and especially along the right side of the sternum. On the back, the sound, owing to the frequency of the heart's contraction, is rather that of a continuous murmur than of distinct pulsations. With the exception of irregularity of the rhythm, there is no other peculiarity in the sound. Respiration natural. To this note of the examination, I added the following DIAGNOSIS and PROGNOSIS—*Dilatation with Hypertrophia of the heart—dilatation, especially of the right cavities,*—Death.

This man recovered so much as to be able to resume his work; but on May 2d, he was seized in a fit, and on the day after died.

The body was examined on the following day by Mr. WM. GUY, Mr. DODDS, and myself. The following brief note I first read to the gentlemen who kindly assisted me:

"*Mills.*—Whole heart enlarged and thickened; principal dilatation of the right ventricle. No contraction of valvular orifices. Lungs sound."

Dissection.—All the viscera, except the heart, particularly sound. No mark of inflammation or adhesion in any part of the chest or abdomen. Heart of a rounded figure, the apex being quite blunt; very large, certainly more than one-half, and probably two thirds larger than natural. The greatest dilatation was in the right ventricle, the parietes of which were about the natural thickness of a heart proportioned to this man's size; the right auricle enlarged in the same proportion as the ventricle. The left ventricle was also much enlarged, but not in so great a degree as the right; it retained its ordinary superiority of thickness over the left, but its walls, as well as those of the right, were flabby. One of the columnæ carneæ of the left ventricle was enormously enlarged, and looked like a foreign body projecting from the walls. There was no mark of adhesion or inflammation about any part of the heart, and all the valves and orifices in all the cavities, and also all the large and small blood vessels, were perfectly sound. There was a moderate quantity of water in the pericardium. The head was not examined. p. 96.

We have not made any comments on the cases which we have given; but the diagnosis and prognosis formed were in general correct, and particularly so in the last case. The immediate cause of Mills' death was apoplexy, produced, however, very evidently by the primary disease of the heart. Those of our readers who wish to obtain more information on the subject of PERCUSSION and AUSCUL-

some French writers, *Irritation Nutritive du Cœur.* It consists in a thickening of the parietes of the heart, and may exist with a contraction or a dilation of its cavities, or without either, in which case it is called *simple* hypertrophia.

TATION than we have given in this and the preceding Number, we would refer to the works of LAENNEC, CORVISART, the original treatise of AVENBRUGGER, and to the volume before us, with the perusal of which we have been so much gratified. AVENBRUGGER, in giving to the world the results of his experience, on the discovery of which he was the founder, published few or none of the cases from which he had deduced them, but left this deficiency to be supplied by CORVISART and others. LAENNEC, in publishing the account of AUSCULTATION, verified all his assertions by numerous facts, which, though they do not supersede the necessity of collecting others on the same subject, add greatly to the value of his work, and had a powerful influence in inducing others to follow his practice. Dr. FORBES's book contains a body of facts, which bear testimony to the value both of percussion and auscultation in the diagnosis of diseases of the chest; it is the first of the kind published in this country, and reflects no small credit on the author for the pains he has taken to make these discoveries generally known. The defects of the work are few: there is a little want of arrangement, the history of the cases is here and there a little confused, and expressions such as, "*antero-posterior*, *attempt at recumbency*, *falsified*, *sedimentous*," &c. are occasionally made use of, which in another edition we should recommend to be altered. The defects are, however, very trifling when compared with the sterling value of the work, and therefore need not be dwelt on—

"Verum ubi plura nitent in libro, non ego paucis
Offendar maculis——"

If there be any medical man, who, acquainted with the facts recorded in their favour, still condemns these discoveries, without giving them a fair and impartial trial, it would be a vain and hopeless task to convince him of the folly of his way by any appeal to his understanding; "for if he hear not MOSES and the prophets, neither would he believe if one rose from the dead." We earnestly hope that the author of this volume will continue to collect and publish all the most valuable cases illustrative of percussion and auscultation which may come under his notice, for by such a course he will confer a lasting benefit on the profession, and be entitled to rank among its greatest benefactors.

FOREIGN DEPARTMENT.

ANALYSIS OF FOREIGN MEDICAL JOURNALS.

The following case of medullary sarcoma of the eye occurred in the practice of Mr. WARDROP, in the year 1821, but has not been published by that gentleman, for reasons which we are not able to state, unless it be that it was unsuccessful, a circumstance which, we should hope, would never deter any surgeon of an honourable mind from giving the public useful information. One of Mr. WARDROP's friends, Dr. POCKEL, a German, who was present at the operation by invitation, has departed from the silent course pursued by Mr. WARDROP, and in a late number of GRAFE's and WALTHER's *Journal fur Chirurgie und Augenheilkunde*, published a full account of the case. The history of the child, and the state of the

removed eye, are detailed at length, we will not say with great clearness. The account of the operation is very briefly mentioned, although sufficient is said to enable one to see the cause of failure in this instance, and it may serve as an important lesson to future operators in similar cases. We think, upon the whole, that the case will be read with considerable interest.

Case of Medullary Sarcoma of the Eye, by Dr. POCKELS. *Extirpation of the Eye by Mr.* WARDROP.

In a treatise on scirrhus, medullary sarcoma, fungus, &c. which contains by far the most accurate diagnosis of these complaints ever published,* Professor WALTHER expresses a doubt on the origin of medullary sarcoma of the eye, as stated by Mr. WARDROP. He is of opinion that such a pulpy mass cannot be seen at the back of the globe of the eye through the cornea, lens, and vitreous humour, and moreover believes that the muddy colour, which is to a certain degree visible, is only apparent, and does not really exist. A knowledge of the early formation of medullary sarcoma of the eye, is of importance in several points of view, particularly as regards the prognosis, for, if discovered soon (certainly a rare case), the life of the patient may be saved by the extirpation of the eye, sufficiently early undertaken. The following case, which I, in conjunction with several friends, besides Dr. SAVENKO and Dr. SALOMON, of Petersburg, had an opportunity of observing during the winter of 1820, must on that account be of general interest. I transcribe it from my note-book.

* Gräfe's and Walther's Journal, Vol. V. Part II. p. 276.

Robert Tyler enjoyed perfect health till he was eighteen months old; without any assignable cause he became cross, quiet, bad tempered, drowsy; his appetite and digestion remained good, he did not waste in body, and there was no appearance besides of disease. When three years old, his parents were induced, on account of an enlargement of his head, to consult a physician respecting the nature of the case, and were informed that a chronic hydrocephalus was to be expected; opening medicines were uninterruptedly given for some months, without effecting any change in the child's state, and the complaint was therefore left to itself. In the month of April, 1820, his parents accidentally discovered that Robert saw badly with the left eye, without being able to perceive any defect in it. From this time they paid close attention to him, and found that in the month of July the vision of the left eye was entirely gone; they now observed, deep in the eye, a white glistening appearance, and therefore conceived the complaint to be cataract. Mr. WARDROP was consulted about the child, and this gentleman explained to the parents that the disease of the eye was of a most dangerous nature, and that the eye itself must be extirpated, as it was only by this operation that the life of the child could be preserved. The parents would not consent to this, as the boy had not complained of any pain, and his countenance was healthy, but especially as several physicians, who had been consulted, represented such a serious operation, for a complaint so apparently trivial, as a very culpable measure. In the course of the following September and October, the variegated whit-

ish flat surface at the bottom of the eye was observed to have undergone a complete change, having become prominent, and of a yellowish white colour. Mr. ARNOTT, a most respectable surgeon, who was now consulted, recognised the complaint of the eye to be a medullary sarcoma, and explained to the parents that it was a most serious affection, which might, however, be cured by the removal of the whole eye. On the 28th of November I saw the child, through the kindness of Mr. ARNOTT, who had several times observed the progress of medullary sarcoma, as described by WARDROP, by which means he had been able to give so clear an opinion in this case.

The child at this time was four years old, of the usual size for that age, with light-coloured hair and complexion, and blue eyes. The head was in proportion to the rest of the body, the forehead large and prominent; he had a mild expression, delicate complexion, but in no respect was his look unhealthy. For some time past he had shown an indisposition to the sports of children of his age; but he was not shy; the answers to questions which were put to him were slow but distinct. His memory was weak, his faculties impaired; but he seemed to be able to point out his feelings with great accuracy. With the exception of total blindness of the left eye, the other senses were not affected. He complained neither of pain in the eye nor in the head. His appetite, digestion, urinary secretion, perspiration, were, according to the statement of his parents, in a healthy state; occasionally they would observe a very violent perspiration on the head. He slept longer than his brothers and sisters, and also slept some hours during the day. His pulse was regular, but rather quick; from 100 to 110, and hard, though to no great degree.

He willingly permitted a close examination to be made of the eye, and sat very quietly during half an hour for a drawing to be taken of it, without being in the least astonished or becoming irritable. Both eyes were of the same size, nor did they project forwards. In the right eye, with which it was observed that Robert could see well both near and at a distance, the iris was of a fine blue colour; the pupil was entirely black and round, and dilated to the usual extent; it immediately contracted on the admission of strong rays of light.

In the left eye, the sight of which was entirely gone, there were observed several varicose veins; there was no inflammation of the eye-ball or the surrounding parts, nor any increased secretion from the meibornian glands. The iris was of a greyish green colour, the pupil considerably dilated, irregular in its shape, and completely insensible to the action of the light. The cornea, aqueous humour, lens, and vitreous humour, were quite transparent, and not in the least deranged in colour. Through these transparent media a yellowish-white tumour could be observed, occupying nearly the posterior third of the eye. The convex surface of the tumour, projecting into the vitreous humour, was divided by sulci into three arched parts, on which a fine ramification of vessels formed a thin red net-work.

Among several thousand diseased eyes, I never before saw a similar change in that organ. It was so different from the white glistening metallic appearance at the bottom of the eye, which BEER

describes as the amaurotic cat's-eye, and from the greenish hue, as in glaucoma, and from opacity of the posterior capsule, so that an error in the diagnosis of this case could not be easily made. One could easily be convinced, by a little attention, of the real existence of an unusual tumour, which projected into the vitreous humour.

In the commencement of December, the child complained of pain in the left eye and forehead; the sclerotic had become redder, and the eyelids were closed a little in the mornings. The near approach of danger, from the rapid development of the disease, was once more explained to the parents, when they at last consented to the extirpation of the eye. On the 7th of December, Mr. WARDROP performed the operation in the presence of Mr. ARNOTT, myself, and several other physicians, and afterwards gave Dr. SAVENKO and me the extirpated eye for anatomical examination.

After the removal of the fat and cellular membrane, together with the muscles from the sclerotic, we found the eye-ball of the usual form and size. The optic nerve, in the removal of the eye, was divided obliquely, and so near to the sclerotic, that on the outer side a part of this coat, to the extent of half a line, close to the insertion of the nerve, was wanting; and in this part there was a small opening, through which, on gentle pressure, a whitish gelatinous substance escaped. An incision was made through the centre of the eye from before, backwards, and the aqueous humour, quite clear, escaped from the anterior chamber. The cornea and sclerotic were throughout of the usual thickness and firmness; the lens, capsule, and vitreous humour were clear, completely transparent, and of the usual consistence. The fine dark colour of the ciliary processes and uvea had been visible through the clear aqueous humour. A tumour occupied the posterior half of the eye in the place of the vitreous humour, and which, on being divided, might have been taken for, both as regarded colour and consistence, the cortical substance of a child's brain. The greater part of the vitreous humour was removed, for the purpose of examining the connexion of the tumour with the coats of the eye. The sclerotic could be easily separated from the choroid coat. In the choroid, about three lines from the insertion of the optic nerve, was a circular opening, a line in diameter, through which a small projecting part of the tumour touched the sclerotic. In the place just opposite to the opening, about three lines also from the insertion of the nerve, there was a thin layer of the gelatinous mass firmly attached on the outer side of the choroid, in form and size resembling a lens; on the part of the sclerotic corresponding to this there was no mark of disease to be observed. These two places excepted, the choroid was throughout of the usual structure. The retina was separated from the ciliary ligament, and detached from the inner surface of the choroid. It preserved its whitish blue colour to near the tumour, in which part it was a completely transparent membrane, and firmly attached to the convex surface of the tumour, which projected forwards into the eye. In the centre of this there was observed a very fine net-work about it, resembling a spider's web. On the removal of the retina, the tumour was so easily separated from

the inner surface of the choroid, that between it and the tumour no organic connexion could be observed; and, although the tumour lay so close to the choroid, yet this coat was no where deprived of its pigment, excepting at the opening above described. At the insertion of the nerve only the tumour was firmly connected by means of a great quantity of thin cellular tissue. From this it is apparent, that the morbid change began in the lamina cribrosa, and extended itself into the substance of the retina, at first only attacking a thin lamella on the outer side, close to the choroid. On the disease increasing, the retina became pushed forwards, and thus absorption of the vitreous humour took place together with a small portion of the choroid. There cannot be the least room for doubt, that the sclerotic, at the point where the choroid was absorbed, would have been destroyed before the protrusion of the tumour through the cornea, and the fungus have projected in that situation.

Mr. WARDROP called the disease fungus hæmatodes, the same as described by Mr. ABERNETHY, under the name of Medullary Sarcoma. The child was attacked with fever after the operation, but for the first fourteen days no bleeding occurred. But after the fourth week, a sprouting fungus, from which frequent bleedings took place, manifested itself. This gradually filled the cavity of the eye, and protruded between the eye lids to the size of a hen's egg. The frequent repetition of the bleeding hastened his dissolution, and on the fourth month from the operation the boy expired. As far as I am aware, no examination of the body was made.

The unfortunate termination of this case cannot be quoted as proof against the propriety of extirpating the eye in the early stages of medullary sarcoma of the eye, as undoubtedly there was a portion of the disease in the nerve allowed to remain in the socket of the eye.

Case of Amputation at the Hip Joint. By HERR VON WALTHER, professor of Surgery to the University of Bonn.*

(Gräfe and Walther's Journal.)

The subject of the present operation, ANTONY MULLER, a peasant, æt. 21, born of healthy parents, had enjoyed good health till he reached his 14th year, when, without any known cause, a swelling, unattended by pain, presented itself on the outside of the right thigh, and at one-third of its length from the top. The swelling increased very slowly, and at the end of four months had reached the size of two fists: it then became painful, the skin grew red and thin, and in a few weeks it burst, and gave issue to a moderate quantity of turbid, purulent, bloody fluid. After a variety of treatment, the fistula closed; but matter continuing to form in the deep-seated parts, another swelling formed on the inside of the thigh, which burst in two places. Subsequently, the cicatrix on the outer side also gave way; and in this manner they constantly continued to open and close alternately, for the space of six years; during which time the patient, though with great difficulty, continued to work, his constitution also being much impaired.

* This university was only founded as late as 1818, by the present King of Prussia, but owing to the celebrity of its professors, it is becoming one of the most flourishing in Germany.—Ed. L.

In this condition he was so unfortunate as to have a complicated fracture of the diseased limb: the wheel of a loaded cart passed over his thigh, and broke it in the upper half of its length in two places, and with several splinters of various sizes. He was unable to procure any suitable attendance; violent inflammatory swelling ensued; the previous suppuration extended itself in all directions; the spaces under the fasciæ and between the muscles were filled up with matter; the former fistulæ became larger, and new ones formed; and, by the action of the muscles, the lower part of the bone was so much drawn up that an inch of it projected at the inner and back part of the thigh.

In addition to all this he was hectic, had night sweats, colliquative diarrhœa, and commencing gangrene over the sacrum. As he was unable to move, and every attempt gave him pain, he lay for several weeks on straw (in a stable); so long, in fact, that the straw, impregnated with matter, began to putrify, and smelled most offensive.

He was found in this condition by the district physician, who, having examined him as perfectly as the state of the patient and the darkness of the place would permit, explained the impossibility of recovery without amputation; and, having obtained his consent to it, procured his admission into the surgical hospital of the University of Bonn.

On his arrival, Professor Von Walther found him as above described; the whole thigh was swelled, and painful up to the groin, from the shaking of the broken fragments during the journey in a common cart over bad roads. A probe, passed into the fistula, run up the thigh almost to the groin, and came in contact with the bone, which was bare. His appetite, digestion, and breathing were good, and he was not extremely emaciated. The suppuration was profuse; the matter bloody and ill-conditioned. The ulcer in the sacrum was superficial; but, as it was impossible to put the patient in any posture by which it might be relieved from pressure, its healing could hardly be expected.

No evident improvement was discernible at the end of six days, notwithstanding a good diet, care and cleanliness, poultices, opium, calumba, and lichen-islandicus were employed, except that the swelling of the upper part of the thigh was reduced, and the pain much lessened by the removal of some loose splinters of bone.

The necessity of amputation was obvious, and equally so the certainty that it must be performed at the hip-joint, an operation which Professor Von Walther conceived the patient unable to support. He, therefore, prepared to dismiss him from the hospital, a resolution which the patient, gratified by the attention paid to him, heard with great regret. His mother too, and the district physician, stated, that in that case no other fate awaited him than to lie in a stable on putrid straw, starving and waiting, in a miserable condition, the approach of an unavoidable death; whilst in the event of an operation, his recovery was, if not probable, at least possible. These considerations induced Professor Von Walther to change his determination, and to perform the operation on the day following.

He proceeded to execute it in the following manner: The patient

was placed nearly horizontally, with a slight elevation of his head and shoulders, on the operating table, his breech projecting over its edge: he was kept steady in this posture by several assistants: the sound limb rested, with the foot on a stool, and was also secured by an assistant: the diseased one was placed horizontally, carried outwards, and fixed by two assistants, of whom one held the upper fragment of the broken thigh, and the other the remaining parts of the extremity.

Another assistant, standing on the right side of the patient, opposite the hip, compressed the femoral artery with the pad of a compressorium, where it passes over the horizontal portion of the os pubis. Professor Von Walther then grasped with the whole of his left hand a large longitudinal fold of the integuments and subjacent parts on the outer side of the hip-joint; in his right he held a large pointed and double-edged knife, which he thrust three inches below the anterior superior spine of the ilium, at the outer edge of the sartorius muscle, perpendicularly through the skin, the fascia, and tensor vaginæ femoris, down to the neck of the femur. The handle of the knife was then inclined inwards, and its point passed round the neck of the femur in a direction outwards and backwards; it thus passed in a curved line along the pit formed by the upper part of the great trochanter, and was brought through the skin three inches and a half behind that process, and at about the same height as the point at which it entered. The edge of the knife was then directed in the following manner: first, somewhat upwards, so as to clear the top of the great trochanter, and to get clearly out of the pit behind it; then, perpendicularly downwards, first along the outer side of the trochanter, and then along the femur close to the bone; in the last place, at about two inches below the base of the trochanter, it was turned obliquely outwards, cutting first through the muscles, then through the integuments, and in this way completing the first flap, which was an external and not a posterior one; it had a valve-like oval shape, and consisted of the integuments, the fascia, the greater part of the tensor vaginæ femoris, and small portions of the gluteus maximus and medius. The outer edge of the sartorius was exposed, but the muscle itself untouched.

Here Professor Von Walther remarks, that if this first stage of the operation be performed on the dead subject with the vessels injected, it will be found that the only vessels divided are some branches from the external circumflex artery of the thigh, and that the femoral artery and vein are full an inch distant from the anterior edge of the flap, whilst the ischiatic artery will be found close to its posterior edge, and the ischiatic nerve almost exposed. In order to avoid dividing the ischiatic artery, (in this stage of the operation,) the operator must avoid carrying the incision in this first or external flap too far backwards; for which reason, Professor Von Walther would make it smaller (if necessary) and keep more to the front of the limb. The consequence of a careful attention to these rules, in the case before us, was, that no vessels of importance presented themselves in the external flap; of course, it was not necessary to apply any ligatures, and Professor Von Walther was enabled to proceed with the opera-

tion without experiencing any delay from that source.

The first flap was raised and everted by an assistant, and at the upper part of the angle between it and the rest of the limb, the capsule of the joint was seen to be exposed at its upper and outer part, and it was easily opened, when in a state of extension, by means of a large bistoury. Professor Von Walther thought it advisable to retain as much of the capsule as possible, for the purpose of covering the cavity of the joint, in the same manner as he (Salzburg Med. Chir. Zeitung,) and Brunninghausen have proposed to retain portions of the periosteum for covering the ends of the bone in common amputations.

In the next place he proceeded to disarticulate the head of the bone: for this purpose the thigh, which had hitherto been kept in the line of the axis of the body, was carried horizontally inwards until it formed a right angle with it, and at the same time turned so that the toes and the front of the knee were directed upwards. To this latter point Professor Von Walther attaches much importance; for, according to him, it is only when the limb is carried into a state of adduction, so as to form a right angle with the trunk, the points of the toes being at the same time directed forwards, that the disarticulation can be effected with certainty and facility. By this method the ligamentum teres was rendered tense, and was cut through with a small knife carried into the joint round the head of the femur, which the operator's left hand, not otherwise engaged, served to press outwards and downwards.

A single-edged amputating knife was then carried through the joint, behind the head of the femur and round the trochanter minor, the same moment that, by a combined motion of the assistants, the limb was once more brought from a state of adduction to a nearly straight position. In order to carry the knife with facility round the head of the bone, says Professor Von Walther, it is necessary that the change in the position of the limb should be very gradually effected by the assistants, and that it should be simultaneous with the progress of the knife in the operator's hand, by whose proceeding they must be guided.

The remaining part of the operation consisted in the formation of the internal flap; the amputation knife was carried for the space of two inches along the inner side of the femur; in doing so, the only caution necessary was to avoid coming in contact with the trochanter minor, with which view the edge of the knife was slightly raised as it passed along that part of the bone: in this manner all the muscles on the front, the inside, and the back part of the limb were completely separated from the bone, whilst the femoral, nay even the ischiatic, vessels were yet undivided. An assistant then placed the thumbs of both hands in the wound, and close to the almost detached femur whilst, with the remaining four fingers of each, he grasped the soft parts at the inner and upper part of the thigh, including the femoral artery and other great vessels, in that way commanding the flow of blood through them, and facilitating their subsequent division. Professor Von Walther advises that the assistant's hands should be applied as high as possible; first, because there the great vessels lie close together, and can be more

securely compressed; and secondly, because there is less chance of his being wounded by the knife. The amputation knife having, as already stated, been carried two inches below the trochanter minor, was directed obliquely downwards and inwards, making an incision through the muscles, vessels, nerves, and, last of all, through the skin. The formation of this internal flap, though to the patient the most painful, is to the operator, according to Professor Von Walther, the easiest part of the operation. The latter has only to take care that it is not too small, nor yet so large as unnecessarily to increase the unavoidably great surface of the wound;—that the skin is cut through sufficiently low;—that the edge of the incision in it has as much of a semicircular form as possible;—and, lastly, that the incision shall form a continuous line, without any angles or interruptions.

The internal flap contained the largest and most important muscles of the thigh: the bulk of it was formed by the adductores, with which were connected the gracilis, pectineus, sartorius, and rectus superiorly; and inferiorly the obturatores, gemelli, biceps, semitendinosus, and semimembranosus. It contained, also, the crural and ischiatic nerves, (of which the latter occupied precisely the point of union of the two flaps,) the femoral artery, the profunda, the obturator, the external circumflex, the ischiatic, and numerous branches partly of the above vessels, partly of the gluteal. After the formation of the second flap, the next step was to tie the vessels with all possible celerity, which was effected without any difficulty, the loss of blood not being greater than in an ordinary amputation. The vessels tied were the femoral artery and profunda, the femoral vein, the obturator artery, the external circumflex, the ischiatic, and six smaller ones: the femoral artery and vein were tied with a double silk thread, the other with a single one, and, according to Professor Von Walther's practice in all amputations, and in most other operations, the ligatures were cut off close to the knot.

The external and internal flaps, in which the muscles had retracted but little in consequence of being divided near their origin, admitted of being applied to each other without any dragging or extension, so that the surfaces mutually covered each other, and the edges of the incisions in the skin met in almost uniform contact. The internal flap, in particular, was kept up by very long pieces of adhesive plaster, of suitable width, fixed at the upper part of the hip, and stretched over the buttock. The remainder of the dressing consisted of a simple superficial, retentive and compressive apparatus, formed by coarse charpie, several compresses, and a circular bandage of appropriate breadth.

The patient bore the operation well, and only took a few spoonfuls of wine during the time of its performance. He was well, also, during the hours immediately succeeding; but in the afternoon he was seized with a shivering fit, during which his pulse was small and contracted, his skin cold and damp. These symptoms were relieved by warm wine and æther sulphuricus. In the night he had several hours' broken, yet tolerable, rest, and in the morning complained of no particular pain, except in the gangrenous ulcer on his back. The dressing was soaked through by a copious serous

fluid; the diarrhœa had ceased since the operation; the profuse sweating too had diminished; the skin was moderately warm, and the pulse somewhat frequent. His spirits were good; his tongue moist; thirst considerable.

On the fourth day the dressings were changed: the plasters had been detached in several points by the copious discharge of their matter, and the internal flap was somewhat retracted, so that the wound gaped a little; but nevertheless incipient union was visible at the angles. On the fifth and sixth days the appearance of the surface of the wound on both flaps was much improved; good, thick matter with healthy florid granulations had formed at several points. The pulse had lost its hardness; it was moderately frequent, but febrile in the fore part of the day. Considerable thirst, night sweats, and a painful state of the ulcer on the sacrum still continued. Various attempts were made to change the position of the patient, so as to relieve the ulcer from the weight of his body, but in vain; all failed, as he could only bear to lie horizontally on his back. Under these circumstances, the ulcer on the ninth day was gangrenous, and a new attack of fever and shivering made its appearance. The pulse sunk considerably on the following night, which the patient passed without sleep, and with frequent delirium. The wound of the amputation had still a tolerably good appearance. On the next evening he had another shivering fit, and passed the night in a state of constant delirium, with a small and very quick pulse. The extremities became cold, and he died tranquilly about six on the morning of the eleventh day.

The body as well as the amputated limb were carefully examined in the Anatomical Theatre by Professor Mayer. All the organs of the chest and abdomen were perfectly healthy. The inguinal glands on the right side were swelled. The surface of both flaps, excepting the discoloration and other changes which had taken place since death, presented every appearance of a speedy union. There was not any evident change in the state of the cavity of the joint, except that the cartilage was somewhat softened, and the end of the ligamentum teres contracted and about to separate. In all the arteries the usual plug of lymph was found behind the ligature, but in none of them was longer than five lines. There was also a similar plug in the femoral vein, but not any diffused inflammation of its inner surface. The crural nerve was not inflamed, but in the ischiatic, the neurilema for about an inch above the point of action was somewhat reddened.

In the amputated limb, the fractures were found to be in the upper half of the bone; the middle portion between them was not in contact either with the upper or the lower end of the bone: it was merely connected with the soft parts, was in a state of necrosis, and would speedily have separated. The broken surfaces were rough and carious. The head and cervix, the trochanter major and minor, and the condyles were the only sound parts of the bone: the rest being swelled, rough, carious, and separated from the periosteum, which was thickened, and in some parts ossified.

Professor Von Walther next proceeds to make some critical remarks on some other modes of performing the operation when com-

pared with that he practised. He condemns M. LARREY's plan, in which the femoral artery and vein are tied before commencing the amputation. He himself causes the artery to be compressed with an oval pad attached to a suitable handle, which answers the purpose so effectually that he advises the operator, after the removal of the limb, to apply a ligature to the femoral vein, and to the minor arteries, before attempting to tie the femoral, from which the compression prevents the escape of a drop of blood. Another objection to LARREY's operation is, that he commences with the formation of the inner flap, which contains all the principal vessels, so that if, as sometimes happens, there should be any difficulty in disarticulating the bone, much blood would be lost before the vessel could be secured.

Mr. GUTHERIE's method appears to him to be very difficult, and to be attended with many disadvantages: in particular, as he begins with the posterior formation of the flap, the ischiatic artery must be divided at the very commencement of the operation, and there will consequently be bleeding and a necessity for delay, in order to apply a ligature to it.

His own operation bears some resemblance to the mode recommended by LISFRANC and MAINGAULT, with which he was unacquainted at the time. The points of difference are, however, sufficiently striking, and in every respect in favour of Professor Von Walther. In the process of the French surgeons, the flaps are anterior and posterior, or nearly so: consequently, in the formation of the posterior one, many large arteries must be divided, and will require to be at once secured. In Professor Von Walther's, on the contrary, the first flap is external, with scarcely any inclination backwards, and does not affect any arteries requiring ligature. Maingault's method, which, from being the latest of the two, may be considered as an improvement, makes a nearer approach to this, and forms a medium between that of Walther and Lisfranc. The second point in which the German differs from the two French surgeons, is, that he disarticulates the bone before forming the internal flap, and of course before dividing the great vessels. When the second flap is formed before detaching the bone from the joint, many vessels must be at once secured in the middle of the operation, and which, in the incisions necessary for separating the head of the bone, may possibly be divided a second time; and, independent of this, the ligature of the arteries is much more easily and securely effected after the bone is removed, than at any other period, when the operator's attention is naturally distracted by other important steps of the process.

Professor VON WALTHER thinks, also, that the formation of the internal flap is easier, and less painful for the patient, when performed after the disarticulation of the head of the femur, than when these stages of the operation are reversed. By his method, all incisions for exposing the inner and front part of the capsule are rendered unnecessary; and once the capsule is divided, the remaining part of the operation consists in a single incision, passing through the joint, round the head of the bone, continued along its shaft, and then obliquely through the muscles, but transversely through the skin.

Extirpation of half of the Lower Jaw, by Professor Gräfe, of Berlin.—(*Gräfe and Walther's Journal.*)—The patient was a woman, aged 34, who had for some time had a very painful osteo-sarcoma of the left half of the lower jaw, as large as two fists, bleeding at every touch, impeding speech, breathing, and mastication, discharging offensive matter, and producing hectic fever. Professor Gräfe began by making a perpendicular incision, through the middle of the lower lip, which he continued along the base of the left half of the jaw, as far as the ascending branch, and in that way exposed the outer and under surface of the diseased mass. The soft parts being held aside, he introduced a curved knife into the mouth, and separated the left half of the jaw from all its connexions. In order to defend the neighbouring soft parts, he passed two straps behind the bone—one, an inch wide, at the chin; another, two inches wide, at the situation of the last molar tooth. Upon these he divided the bone with a small saw, first in front, and then close behind the last grinding tooth. The detached piece of bone was then taken away, and the sawed ends of the remaining portions rounded off. All the vessels which had been divided before the sawing of the bone, had been secured at the time, so that the only remaining one was the artery running in the canal in the bone: the bleeding from this was stopped by introducing a little bit of sponge. The lip was brought together by the twisted, the wound in the cheek by the common, suture. Eighteen days after the operation, the patient could speak plainly, and chew solid food with the right half of the jaw. In three weeks the whole was healed. The deformity was very slight, as the incision formed a mere line, and as the cheek had acquired a degree of firmness sufficient to preserve the form of the face.

It seems rather strange that this operation should not have been performed in Britain until very recently, though it has proved so useful in the hands of Gräfe, Dupuytren, Mott, and others. That the cases in which it may be performed are not rare, may be well conceived from Gräfe's statement, that in 1823, he practised it, to a greater or less extent, in no less than five cases.

To the Editor of THE LANCET.

MR. EDITOR,

I have the highest respect for *The Times* newspaper, and have no doubt you will join me in admiring the fine tone of manly independence in which it is conducted. I am, therefore, sorry when I see its columns polluted by the insertion of such paragraphs as that I read yesterday, headed "Resurrection Men," and beginning "Another of these wretches," &c. I submit to you, Sir, whether such articles, appearing in so respectable a journal, are not calculated to produce the worst effects on the public mind, and whether they do not largely affect the interests of the medical student, and consequently of the profession generally. I can easily understand why newspapers of less note readily give insertion to such stories, because, with a certain class of readers, these highly seasoned relishes are gratifying to a depraved appetite, and in the absence of a Hertfordshire murder, may serve to relieve the dullness of their matter; but, to

the discerning part of the press, I would say, borrowing the language of Shakspeare, "He that is robbed, not knowing what is stolen, let him not know it, and he's not robbed at all."

The last Number of the Westminster Review has a very sensible article on the "use of the dead to the living," which should be generally read.

Perhaps, Mr. Editor, you will take the trouble to say a few words on this subject, as it is a very important one.

Remaining your well-wisher,

T. C.

Wandsworth, Oct. 28.

NEW SOCIETY OF PHYSICIANS.

From the nature of this Society, and the danger likely to accrue to the profession and the public from its operations, we are glad to see that it is henceforth to be put under the control of the *Medical Police*.

TO CORRESPONDENTS.

All Letters requiring answers shall positively be replied to in our next.

The Hospital Reports, and Dr. ARMSTRONG'S Lectures will be resumed in our succeeding Number.

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